# **Preventing Rabies**

Rabies prevention is a timely summer topic. Two excellent national rabies prevention guidelines became available in recent months, addressing both human and animal rabies prevention. In addition, there are new CDC guidelines due to a current limited supply of rabies vaccine.

### **Human Rabies Prevention**

Rabies post-exposure prophylaxis, which includes wound treatment, local infiltration of rabies immune globulin (if previously unvaccinated), and a full vaccination series, is uniformly effective if given correctly and in a timely manner.

In May, the Advisory Committee on Immunization Practice issued "Human Rabies Prevention – United States, 2008." This Document updates the 1999 recommendations without substantial changes in post-exposure prophylaxis management. The administration schedules remain the same and there are no new biologics, although one product, rabies vac-



Vials of rabies vaccine Photo courtesy of CDC

cine adsorbed, is no longer available in this country. The two manufacturers of rabies vaccine have patient assistance programs for underinsured or uninsured patients (see Resources).

New sections in the updated recommendations include clarification of situations when rabies post-exposure prophylaxis should be administered and information about deviations from recommended vaccination schedule, post-exposure prophylaxis outside the United States, and cost effectiveness of vaccine administration.

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Mary C. Selecky Secretary Maxine Hayes, MD, MPH State Health Officer

Marcia J. Goldoft, MD, MPH Scientific Editor Deborah Todd, RN, MPH Managing Editor The clarification of situations when rabies post-exposure prophylaxis is recommended include a clearer description for risk of bats in a bedroom stating: "Other situations that might qualify as exposures include finding a bat in the same room as a person who might be unaware that a bite or direct contact had occurred (e.g., a deeply sleeping person awakens to find a bat in the room or an adult witnesses a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person). ... Other household members who did not have direct contact with the bat or were awake and aware when in the same room as the bat should not be considered as having been exposed to rabies." (MMWR 2008;57:RR-3 page 13). In addition, there are clarifications for wild animal exposures. For example: "Suggestive clinical signs of rabies among wildlife cannot be interpreted reliably. All bites by such wildlife should be considered possible exposures to rabies virus." (MMWR 2008;57:RR-3 page 14).

The guidelines for deviations from the recommended vaccination schedule state that if a delay of a few days occurs, vaccination schedule should be resumed as if the patient were on schedule. When longer delays occur, serologic testing should be performed 7 to 14 days after the final dose in the series to assess immune status.

For persons who receive rabies postexposure prophylaxis in a foreign country, the guidelines recommend obtaining rabies virus neutralizing antibody titers from specimens collected 1 to 2 weeks after postexposure prophylaxis if the immune status of the patient is in question.



New Delhi, India: Stray dogs are common sights on streets in Asia Photo by Deborah Todd

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The recommendations also include a cost-effectiveness discussion. For example, cost savings are clear for contact with a rabid animal while cost per life saved may be \$4 billion for a cat lick or for contact with a rabid human in a clinical setting.

## **Animal Rabies Prevention**

In April the National Association of State Public Health Veterinarians issued "Compendium of Animal Rabies Prevention and Control, 2008." These recommendations are reviewed annually and remain the same for observing and testing animals when rabies is suspected.

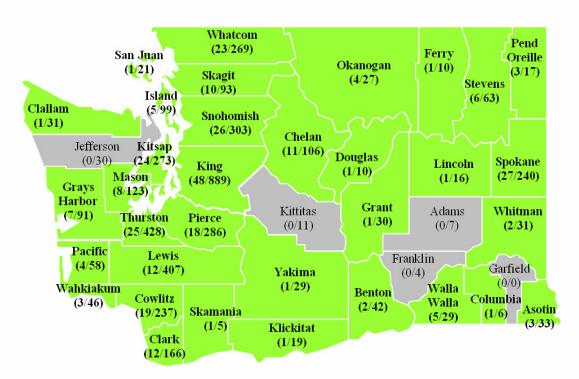
For rabies prevention, routine vaccination is recommended for all dogs, cats, and ferrets. There are no licensed vaccines for wild animals or wild-domestic animal hybrids and it is recommended these animals not be kept as pets. Vaccination should be considered for particularly valuable livestock. Animals in frequent contact with humans, such as animals available to patrons of petting zoos, fairs, or exhibitions, should be currently vaccinated.

### **Availability of Pre-Exposure Vaccine**

Effective May 19th, 2008, both brands of rabies vaccine for humans will temporarily be available only for post-exposure prophylaxis in this country. To manage currently limited supplies of the vaccine, pre-exposure rabies vaccination should be delayed until the supply is sufficient. Treatment including vaccine remains appropriate for persons with likely exposure to a rabid animal.

Additional vaccine may become available during the summer. In the interim, persons at increased risk who are not vaccinated should take appropriate precautions to avoid rabies exposure. Animal control, veterinary, and wildlife staff in need of pre-exposure vaccination should contact their local health jurisdictions to find out about current availability. The situation changes rapidly so local health jurisdictions should consult with Department of Health Communicable Disease Epidemiology Section on a case-by-case basis.

# Reported rabid bats in Washington, 1990-2007 (# rabid / # tested)



### **Rabies Prevention in Washington State**

The DOH Surveillance and Reporting Guidelines for rabies post-exposure prophylaxis have been updated to include the new national recommendations (see Resources).

Bats are the main reservoir for rabies in the state, with rabies detected in other animals only rarely. However, it is important to remember that both domestic and wild animals could be brought into Washington from other parts of the country or even from outside the United States. In March of 2007, a puppy from India traveled through Washington and was later diagnosed with rabies.

The first rabid bat of 2008 was reported May 5. In a typical year the Washington State Department of Health Public Health Laboratories tests over 200 bats of which 5-10% are rabid.

To prevent rabies exposure:

- Do not handle wild animals, especially bats
- Teach children never to touch or handle bats, even dead ones
- Vaccinate pets (dogs, cats and ferrets) to protect them from rabies
- Do not keep wild animals as pets
- Keep bats out of your living space

#### Resources

**Human Rabies Prevention** 

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr57e507a1.htm

**Animal Rabies Prevention** 

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5702a1.htm

Updated Washington State Animal Bite and Rabies Prophylaxis Investigation Guidelines

http://www.doh.wa.gov/notify/guidelines/pdf/rabiesPEP.pdf

Washington State DOH: Rabies Activity in Washington <a href="http://www.doh.wa.gov/EHSPHL/Epidemiology/CD/ci/rabies.htm">http://www.doh.wa.gov/EHSPHL/Epidemiology/CD/ci/rabies.htm</a>

### **Patient Assistance Programs:**

Sanofi Pasteur: telephone (877) 798-8716, or e-mail: nnadiq@rarediseases.org

Novartis Pharmaceuticals:

http://www.corporatecitizenship.novartis.com/patients/drug-pricing/assistance-programs.shtml